

ABSTRACT OF THE DISCLOSURE

A simplified fault tolerant algorithm is presented for operating a distributed computing system in a fault tolerant manner. A system comprising three computing devices need only have two devices agree to perform any proposed function. Thus, when soliciting a vote for a proposed function, a leader device can also send its vote for the proposed function. This allows any recipient device to complete the quorum with its own vote. Consequently, any recipient device can, without any further messages, determine whether to execute the proposed function. Furthermore, if the device executes the proposed function, it can transmit the results directly to the client that requested the function, saving a message delay. If the quorum of devices used to select and execute proposed functions is itself selected by a quorum, then one of the devices of the system can be an inexpensive device having limited computational ability or storage capacity.